

REMARKS

Reconsideration and allowance of this application are respectfully requested. Claims 1, 2, 4-17, 19-22, 28-31, 33 and 36 are pending in the application. The rejections are respectfully submitted to be obviated in view of the remarks presented herein.

As a preliminary matter, a copy of the Supplemental Application Data Sheet supplying the inventor's P.O. address is filed concurrently.

Rejection Under 35 U.S.C. § 102(e) - Massoudi

Claims 1 and 10 are rejected under 35 U.S.C. § 102(e) as allegedly being anticipated by Massoudi (U.S. Patent Number 6,363,511). The rejection is respectfully traversed.

Regarding independent claims 1 and 10, the claimed invention relates to a decoder comprising a storing part, a control part, a first RS core for calculating a first error location and a first error value from data read from the storing part, and a second RS core for calculating a second error location and a second error value from data read from the storing part. The control part *alternately* enables the first RS core and the second RS core to correct the error and update the data.

Turning to the cited art, the disclosure of Massoudi does not anticipate the claimed invention. Massoudi does not teach or suggest any RS cores which are alternately enabled by a control part to correct the error and update the data, as claimed. Although Examiner has suggested that Massoudi's steps 502-508 in Figure 5 teach that the control part alternately

enables the first row RS core and the second column RS core to correct the error and update the data, Massoudi only teaches a sequential processing of row error correction (504), followed by column error correction (506 and 508) (column 7, lines 54-62). Such a sequential processing of rows and columns as taught by Massoudi does not alternately enable RS cores, as claimed.

Massoudi merely generates row syndromes and *performs row error correction for all rows, then generates column and EDC syndromes and performs column error correction* (column 10, lines 6-13). Thus, there is no teaching or suggestion in Massoudi of an alternating enablement of RS cores, because Massoudi completes row processing and then, afterwards, completes column processing. Such a sequential processing of Massoudi does not teach or suggest the claimed alternate enablement of first and second RS cores, because there is no *alternating* of processing in Massoudi at all.

Although Massoudi performs repeat correction for rows and columns, this correction is also not taught or suggested to be performed by alternately enabling row and column correction circuitry. At least by virtue of the aforementioned differences, the invention defined by claims 1 and 10 is patentable over Massoudi. Reconsideration and withdrawal of the rejection under 35 U.S.C. § 102(e) are respectfully requested.

Rejection Under 35 U.S.C. § 103(a) - Massoudi in view of Fujita et al.

Claims 4-9, 11-16, 19-22, 28-31, 33 and 36 are rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over Massoudi in view of Fujita. The rejection is respectfully traversed.

Referring to independent claims 1 and 10, as discussed above, Massoudi fails to disclose or even suggest any RS cores which are alternately enabled by a control part to correct the error and update the data, as claimed. Fujita does not remedy the deficiencies of Massoudi. Fujita describes an error correction apparatus for singly extended Reed-Solomon code or double extended Reed-Solomon code, however, there is also no teaching or suggestion in Fujita of alternately performing first and second calculation steps to correct the error and update the data, as claimed.

At least by virtue of the aforementioned differences, the invention defined by independent claims 1 and 10 is patentable over Massoudi in view of Fujita. Claims {4-9 and 31} and {11-14, 28, 29 and 33} are dependent claims including all of the elements of independent claims 1 and 10, respectively, which as established above, is patentable over Massoudi in view of Fujita. Therefore, claims 4-9, 11-14, 28, 29, 31 and 33 are patentable over Massoudi in view of Fujita for at least the aforementioned reasons as well as for their additionally recited features. Reconsideration and withdrawal of the rejection under 35 U.S.C. § 103(a) are respectfully requested.

Regarding independent claim 15, the claimed invention relates to a decoding method comprising reading data to be decoded and an eraser flag, calculating an error location and an error value from the read data, correcting an error of the data according to the calculated error location and error value, and decoding the data. The calculation step comprises a first calculation step for calculating a first error location and a first error value from the read data, and a second calculation step for calculating a second error location and a second error value from

the read data. Furthermore, the first calculation step and the second calculation step are alternately performed to correct the error and update the data.

As discussed above, there is no teaching or suggestion in Massoudi or Fujita, individually or in combination, of alternately performing first and second calculation steps to correct the error and update the data, as claimed. At least by virtue of the aforementioned differences, the invention defined by claim 15 is patentable over Massoudi in view of Fujita. Claims 16, 19-22, 30 and 36 are dependent claims including all of the elements of independent claim 15, which as established above, is patentable over Massoudi in view of Fujita. Therefore, claims 16, 19-22, 30 and 36 are patentable over Massoudi in view of Fujita for at least the aforementioned reasons as well as for their additionally recited features. Reconsideration and withdrawal of the rejection under 35 U.S.C. § 103(a) are respectfully requested.

With further regard to claims 5, 8, 20, 22, 28 and 29, the Examiner alleges that the respectively claimed elements are “obvious mathematically derivations of syndrome equations for a particular embodiment of the teaching in the Massoudi and Fujita patents.” However, claims 5, 8, 20, 22, 28 and 29 respectively recite particularly claimed embodiments which are neither disclosed nor suggested by either Massoudi or Fujita alone or in combination. At least by virtue of these additional differences as well as the aforementioned reasons, Applicant’s claimed invention distinguishes over Massoudi in view of Fujita.

With further regard to claims 6, 9, 12 and 14, the Examiner alleges that “one of ordinary skill in the art at the time the invention was made would have known how to and would have been highly motivated to create a specific hardware embodiment for implementing the circuitry

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of [the respective claims].” However, the Examiner’s contentions do not rely on any motivation other than improper hindsight, as claims 6, 9, 12 and 14 respectively recite particularly claimed embodiments and are neither disclosed nor suggested by either Massoudi or Fujita alone or in combination. At least by virtue of these additional differences as well as the aforementioned reasons, Applicant’s claimed invention distinguishes over Massoudi in view of Fujita.

In view of the above, reconsideration and allowance of this application are now believed to be in order, and such actions are hereby solicited. If any points remain in issue which the Examiner feels may be best resolved through a personal or telephone interview, the Examiner is kindly requested to contact the undersigned at the telephone number listed below.

The USPTO is directed and authorized to charge all required fees, except for the Issue Fee and the Publication Fee, to Deposit Account No. 19-4880. Please also credit any overpayments to said Deposit Account.

Respectfully submitted,

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